



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,876	03/09/2005	Minoru Miyatake	052212	5559

38834 7590 09/19/2006

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP  
1250 CONNECTICUT AVENUE, NW  
SUITE 700  
WASHINGTON, DC 20036

EXAMINER

DUDEK, JAMES A

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/526,876		MIYATAKE ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	James A. Dudek		2871	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/05</u>  | 6) <input type="checkbox"/> Other: ____.                          |

Art Unit: 2871

**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over 5999239 (239) in view of 6141149 (149).

149 teaches a polarizer comprising a film having a structure having a minute domain dispersed in a matrix formed of a translucent thermoplastic resin [12 and 14] including an absorption dichroic dye [see the top of column 5 and column 18], wherein a transmittance to a linearly polarized light in a transmission direction is 80% or more [see table I, example 11—trans was 81.5%], a haze value is 10% or less [this is inherent or obvious, as all the claimed structure is anticipated by 149 and two out of the three claimed results are taught, thus the third result is inherent or obvious], and a haze value to a linearly polarized light in an absorption direction is 50% or more [this is inherent as reflection is 67 percent, thus haze must be even higher]. Overlapping ranges are at least obvious. In this case, *it would have been obvious to one of ordinary skill at the time of invention* to improve the characteristics of the polarizer. Regarding the 10% haze, if it is not inherent, then it is a matter design choice. All the necessary teaching are in 149 and if one needed the specific haze value one of ordinary skill would be able to create such a polarizer based on the teachings found in 149. Furthermore, this was never

measured. Thus, it is most likely inherent. *It would have been obvious to one of ordinary skill at the time of invention to reduce output haze to create a tighter linearly polarized light.*

Per claim 2-3, 149 teaches the polarizer according to claim 1, wherein the minute domain is formed of an oriented birefringent material [see last paragraph column 12].

Per claim 4-5, 149 teaches the polarizer according to claim 2-3, wherein the minute domain has 0.02 or more of birefringence [see the last paragraph of column 4]. Overlapping ranges are at least obvious. In this case, it would have been obvious to one of ordinary skill at the time of invention because increasing the difference improves the transmissivity of the polarizer.

Per claim 6, 149 teaches the polarizer according to claim 1 or 2, wherein a ratio of a backscattering strength to an incident light strength is 30% or less [see the last full paragraph of column 6]. Again overlapping ranges are at least obvious. *Accordingly, it would have been obvious to one of ordinary skill at the time of invention because this would reduce unwanted glare.*

Per claims 7 and 12, 149 teaches the polarizer according to claim 1 or 2, wherein an absorption axis of the absorption dichroic dye is oriented in the .DELTA.n.sup.1 direction [see the last paragraph in column 18].

Per claim 8, 149 teaches the polarizer according to claim 1 or 2, wherein the film is manufactured by stretching [see spec.]

Per claim 9, 149 teaches the polarizer according to claim 1 or 2, wherein the minute domain has a length of 0.05 to 500 .mu.m in the .DELTA.n.sup.2 direction [see spec "geometer of the disperse phase". Overlapping ranges are at least obvious. In this case, obvious for improving haze characteristics.

Per claim 10, 149 teaches the polarizer according to claim 3, wherein the birefringent material forming the minute domain is a liquid crystalline thermoplastic resin showing up a state of a nematic phase or a smectic phase in a temperature region lower than a glass transition temperature of the translucent thermoplastic resin [see materials list found in columns 12-14].

Per claim 11, 149 teaches the polarizer according to claim 3, wherein a birefringent material forming the minute domain is a product obtained by polymerization after aligning a liquid crystalline monomer showing up a state of a nematic phase or a smectic phase in a

Art Unit: 2871

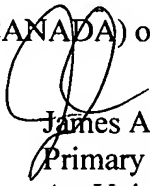
temperature region lower than the glass transition temperature of the translucent thermoplastic resin [product by process limitation see MPEP 2100].

Per claim 13, 149 teaches a polarizing plate comprising a transparent protective layer formed at least on one side of the polarizer according to claim 1 or 2 [the skin layer].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 571-272-2290. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
James A. Dudek  
Primary Examiner  
Art Unit 2871